

**03050109-080**  
**(Saluda River)**

### **General Description**

Watershed 03050109-080 extends through Anderson, Greenville, Abbeville, Laurens, Greenwood, and Newberry Counties and consists primarily of the *Saluda River* and its tributaries from Big Creek to the Lake Greenwood dam. The watershed occupies 169,692 acres of the Piedmont region of South Carolina. The predominant soil types consist of an association of the Cecil-Wilkes series. The erodibility of the soil (K) averages 0.25; the slope of the terrain averages 15%, with a range of 2-45%. Land use/land cover in the watershed includes: 1.18% urban land, 11.27% agricultural land, 4.37% scrub/shrub land, 0.56% barren land, 76.72% forested land, and 5.90% water.

Toney Creek, Mountain Creek, Little Creek, and the Broadmouth Creek watershed (03050109-090) drain into the Saluda River in the upper portion of this watershed, and further downstream Turkey Creek (Goose Creek, Gypsy Creek, Gibson Creek, Dunns Creek, Little Turkey Creek) enters the river to form an arm of Lake Greenwood. Tributaries of the western side of Lake Greenwood include Mulberry Creek (Dudley Creek), Camp Branch, and Quarter Creek. The Reedy River watershed (03050109-120) and the Rabon Creek watershed (03050109-130) join to form another arm of the lake. Also flowing into the eastern lake shore are Long Lick Branch and Cane Creek. As a reach of the Saluda River, this watershed accepts the drainage of all streams entering the river upstream of the watershed. Another natural resource in this watershed is Greenwood State Park, which is located on the western shores of Lake Greenwood. Lake Greenwood is used for recreation, power generation, municipal purposes, and water supply. There are a total of 281.7 stream miles in this watershed, all classified FW.

### **Water Quality**

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
S-864	BIO	FW	MOUNTAIN CREEK AT SR 51
S-125	P	FW	SALUDA RIVER AT US 25 BYPASS, 1.5 MI ESE WARE SHOALS
S-858	BIO	FW	TURKEY CREEK AT SR 96
S-024	W	FW	LAKE GREENWOOD HEADWATERS, JUST UPSTREAM OF S-30-33
S-022	S	FW	REEDY FORK OF LAKE GREENWOOD AT S-30-29
S-131	P	FW	LAKE GREENWOOD AT US 221, 7.6 MI NNW 96
S-804	BIO	FW	CANE CREEK AT S-30-19
S-097	S	FW	CANE CREEK AT SC 72, 3.1 MI SW CROSS HILL
S-303	W	FW	LAKE GREENWOOD 200 FT UPSTREAM OF DAM

***Saluda River (S-125)*** - This stream was Class B until April, 1992. Aquatic life uses are fully supported, but there are significant decreasing trends in dissolved oxygen concentration and pH, and a significant increasing trend in turbidity. Significant decreasing trends in five-day biochemical oxygen demand and total phosphorus and total nitrogen concentrations suggest improving conditions for these parameters. Fluoranthene was detected in the 1997 sediment sample. Recreational uses are partially supported due to fecal coliform bacteria excursions, compounded by a significant increasing trend in fecal coliform bacteria.

***Mountain Creek (S-864)*** - Aquatic life uses are fully supported based on macroinvertebrate community data.

***Turkey Creek (S-858)*** - Aquatic life uses are fully supported based on macroinvertebrate community data.

***Lake Greenwood*** - Lake Greenwood is an 11,400-acre impoundment on the Saluda River, with a maximum depth of approximately 21.0m and an average depth of approximately 7.0m. The lake's watershed comprises 1999.5km<sup>2</sup>. Eutrophication assessments indicate that, overall, Lake Greenwood is of intermediate trophic condition among large lakes in South Carolina.

There are three monitoring sites along Lake Greenwood. At the furthest uplake site (S-024), aquatic life uses are fully supported. Although pH excursions occurred, they were on the high end and a natural condition in lakes with significant aquatic plant communities. Human health standards for mercury were exceeded once in 1997. Recreational uses are fully supported. At the next site downlake (S-131), aquatic life uses are partially supported due to occurrences of zinc in excess of the aquatic life acute standards including a very high concentration of zinc measured in 1995. In addition, there were significant decreasing trends in dissolved oxygen concentration and pH, and a significant increasing trend in turbidity. Significant decreasing trends in five-day biochemical oxygen demand and total phosphorus and total nitrogen concentrations suggest improving conditions for these parameters. Recreational uses are partially supported at this site due to fecal coliform bacteria excursions, compounded by a significant increasing trend in fecal coliform bacteria concentration. At the furthest downlake site (S-303), aquatic life and recreational uses are fully supported. The lake was treated with aquatic herbicides from 1993-1995, and again in 1997 by the Water Resources Division of the SCDNR in an effort to control the aquatic macrophytes.

***Reedy River Arm of Lake Greenwood (S-022)*** - Eutrophication assessments indicate that the Reedy River arm of Lake Greenwood is among the most eutrophic lake embayments in the state, characterized by high densities of algae and high phosphorus concentrations. Watershed management is recommended to reduce phosphorus loading to this area of the lake. Aquatic life uses are partially supported due to pH excursions and impaired by eutrophic conditions. In addition, there are significant decreasing trends in dissolved oxygen concentrations and pH. Significant decreasing trends in pH, five-day biochemical oxygen demand, and total phosphorus and total nitrogen concentrations suggest improving conditions for these parameters. Recreational uses are fully supported.

***Cane Creek*** - There are two monitoring sites along Cane Creek. Aquatic life uses are fully supported at the upstream site (S-804) based on macroinvertebrate community data. At the downstream site (S-097), aquatic life uses are also fully supported, but there are significant decreasing trends in dissolved oxygen concentration and pH. Recreational uses are fully supported.

## Permitted Activities

### Point Source Contributions

<b>RECEIVING STREAM FACILITY NAME PERMITTED FLOW @ PIPE (MGD) COMMENT</b>	<b>NPDES# TYPE LIMITATION</b>
SALUDA RIVER TOWN OF WARE SHOALS/DAIRY STREET PIPE #: 001 FLOW: 6.0 PIPE #: 001 FLOW: 6.5 (PROPOSED) PIPE #: 001 FLOW: 8.5 (PROPOSED) WQL FOR NH3-N, DO, TRC	SC0020214 MAJOR MUNICIPAL WATER QUALITY WATER QUALITY WATER QUALITY
SALUDA RIVER CITY OF BELTON PIPE #: 001 FLOW: 2.5 PIPE #: 002 & 003 FLOW: M/R	SC0045896 MAJOR MUNICIPAL EFFLUENT EFFLUENT
SALUDA RIVER TRIBUTARY BELTON-HONEA PATH WATER AUTH. PIPE #: 001 FLOW: 0.037 WQL FOR TRC	SCG645002 MINOR INDUSTRIAL WATER QUALITY
TURKEY CREEK MILLIKEN & CO./HONEA PATH PIPE #: 001 FLOW: M/R	SCG250028 MINOR INDUSTRIAL EFFLUENT
LAKE GREENWOOD DRIFTWOOD ASSOC. PIPE #: 001 FLOW: 0.02 WQL FOR NH3-N, DO, BOD5, TP	SC0040380 MINOR DOMESTIC WATER QUALITY
LAKE GREENWOOD LAKE GREENWOOD WTP PIPE #: 001 FLOW: M/R PIPE #: 002 FLOW: 0.11520	SCG641009 MINOR DOMESTIC EFFLUENT EFFLUENT
LAKE GREENWOOD GREENWOOD/LAKE GREENWOOD WTP PIPE #: 001 FLOW: M/R	SCG250099 MINOR INDUSTRIAL EFFLUENT
CAMP BRANCH TARMAC MID-ATLANTIC/GWD QUARRY PIPE #: 001 FLOW: M/R PIPE #: 002 FLOW: M/R	SCG730051 MINOR INDUSTRIAL EFFLUENT EFFLUENT
CAMP BRANCH WILSON BROTHERS SAND COMPANY, INC. PIPE #: 001 FLOW: M/R	SC0047007 MINOR INDUSTRIAL EFFLUENT

### Camp Facilities

<b>FACILITY NAME/TYPE RECEIVING STREAM</b>	<b>PERMIT # STATUS</b>
CAMP FELLOWSHIP/RESIDENT LAKE GREENWOOD	30-305-0900 ACTIVE

GREENWOOD STATE PARK  
LAKE GREENWOOD

24-307-0911  
ACTIVE

### ***Landfill Activities***

***SOLID WASTE LANDFILL NAME  
FACILITY TYPE***

***PERMIT #  
STATUS***

MONSANTO CO.  
INDUSTRIAL

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CLOSED

RIEDEL INDUSTRIAL WASTE LANDFILL  
INDUSTRIAL

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CLOSED

RIEDEL INDUSTRIAL WASTE LANDFILL  
INDUSTRIAL (STATE SUPERFUND LIST)

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CLOSED

### ***Mining Activities***

***MINING COMPANY  
MINE NAME***

***PERMIT #  
MINERAL***

COOPER SAND & GRAVEL COMPANY, INC.  
COOPER SAND MINE #1  
INACTIVE INSTREAM DREDGING

0242-23  
SAND

WILSON BROTHERS SAND COMPANY, INC.  
TAYLOR MINE  
OCCASIONAL INSTREAM DIGGING W/DAGLINE

0944-30  
SAND

WILSON BROTHERS SAND COMPANY, INC.  
WILSON BROTHERS SAND MINE  
INSTREAM DREDGING W/DAGLINE ON SANDBAR

0166-01  
SAND

WR GRACE & CO.  
EZELL MINE

0987-30  
VERMICULITE

MORGAN CORP.  
WILSON QUARRY

1010-24  
GRANITE

TARMAC CAROLINAS, INC.  
GREENWOOD QUARRY

0134-24  
GRANITE

### ***Groundwater Concerns***

The groundwater in the vicinity of the landfill owned by Monsanto Co. is contaminated with volatile organic compounds. The facility is in the assessment and remediation phases. The surface water affected by the groundwater contamination is South Creek.

### ***Water Supply***

***WATER USER (TYPE)  
WATERBODY***

***REGULATED CAPACITY (MGD)  
PUMPING CAPACITY (MGD)***

GREENWOOD CPW (M)  
LAKE GREENWOOD

27.0  
39.0

TOWN OF WARE SHOALS (M)  
LAKE GREENWOOD

7.06  
4,900 (GPM)

BELTON-HONEA PATH WTR AUTH. (M)  
SALUDA RIVER

5.4  
8.5

## **Growth Potential**

The Towns of Donalds, Hodges, and Ware Shoals are experiencing some growth due to their close proximity to the greater Greenwood area. US 178 (US 25) and rail lines connect the towns to the City of Greenwood, and the potential exists for some industrial growth due to the existing infrastructure. Infrastructure development in the Ware Shoals-Hodges area has encouraged residential and commercial growth. Lake Greenwood has experienced significant growth; however, the growth is expected to continue at a slower pace in the future. US 221 and a major rail line cross this watershed. A major sewer interceptor connecting Honea Path with Ware Shoals has been completed, and should spur growth in the area.